

EDUCATION AND WORK

Learning to live

Between the ages of 14 and 19 young people not only need to earn qualifications, they need to learn essential life skills. But how best to teach them?

Martin Ince, Science Journalist

IN ANY ADVANCED SOCIETY, the education system is called on to satisfy a wide range of sometimes contradictory aims. It has to put information into people, and teach them how to learn and organise knowledge. It must help socialise the young. It has to produce people with the skills employers need, in a fast-changing world. And it is often asked to right wrongs such as social inequality and exclusion, by helping children and adults from less prosperous and academically-focused backgrounds to overcome disadvantage.

Education in the UK takes on these challenges with learners at all stages of life, from pre-school provision to adulthood. But it is between the ages of 14 and 19 that the issues emerge most visibly. At this point in their lives, some people enter the workforce, while others go to university and may remain students until deep into their 20s. Still others start paid work but continue in some form of education or training.

The importance of 14-19 education has attracted political attention, in the shape of a 2004 report on the issues from a group chaired by Mike Tomlinson, and a subsequent white paper on possible reform. In January 2007, the government proposed raising the school leaving age to 18 by 2013. It would become compulsory for anyone up to 18 to be in education, or in work that includes training. At the moment, 24 per cent of young adults in this age range are not receiving any training or education.

Is it possible to heal the big divides that today's 14-19 education system seems to perpetuate? At the moment, A-levels, taken in school or at a college, are favoured by UK students en route to college, except in Scotland which has a system of its own. But for those not bound for college, there are a range of other qualifications which have lower prestige, ▶



EDUCATION AND WORK LEARNING TO LIVE

► are taken by people from less privileged backgrounds, and lead to less desirable careers.

Tomlinson proposed a single set of qualifications in the 14-19 arena. His proposal was ducked by the government, which instead proposed upping the status of vocational qualifications while leaving A-levels in place and inherently leaving schools at the top of the food chain, with lower esteem for business-oriented qualifications.

But this compromise is unlikely to be a stable one. The university admissions tutors, who have been the biggest supporters of A-levels, may be losing sympathy for them. As more students get A grades, their value as a selection tool is falling, and they are a poor predictor of university performance.

Research from the Teaching and Learning Research Programme (TLRP) has taken a long look at 14-19 provision.

Its first finding is that the academic-vocational divide is not just about whether people learn welding or economics. It is about esteem and status. This means that the colleges of further education which deliver vocational provision have an especially

Status and esteem play a major role in the academic divide between those taking A-levels and those who take vocational qualifications.

tricky mission. Many of their students have had a highly unsatisfactory experience of education. Their enthusiasm for learning may be low. They are often ill-prepared for big choices about their future working lives or about the education they may need to achieve it. They have already experienced failure by comparison with other people of the same age. Many students are encouraged into very specific vocational education which can turn out to be a bad choice when they find out what is really involved in being, say, a nursery nurse. Often the career advice they receive is too limited. It also has a strong tendency to reinforce gender stereotypes in the people it sends to become builders or hairdressers. People who go to university at 18 or 19 keep more choices open, even if they do study a fairly specific subject for their degree.

Apprenticeship – an ancient form of job-related learning that has retained a place in the modern educational system – offers examples of both good and failing 14-19 provision. In some fields such as engineering, would-be apprentices are making a positive choice to get involved. They need school qualifications that would otherwise take them on the university route. In these apprenticeships, people learn in a structured way over several years. At the other extreme are ‘so-called apprenticeships’ with little structured learning. These are little more than a source of cheap labour for employers and provide few opportunities for career progress. Both individuals and the economy have much to gain from better apprenticeships.

In most other European countries, firms are only allowed to take on apprentices if they employ qualified trainers. In the UK there is no guarantee that apprentices will have qualified people to deal with in their company.

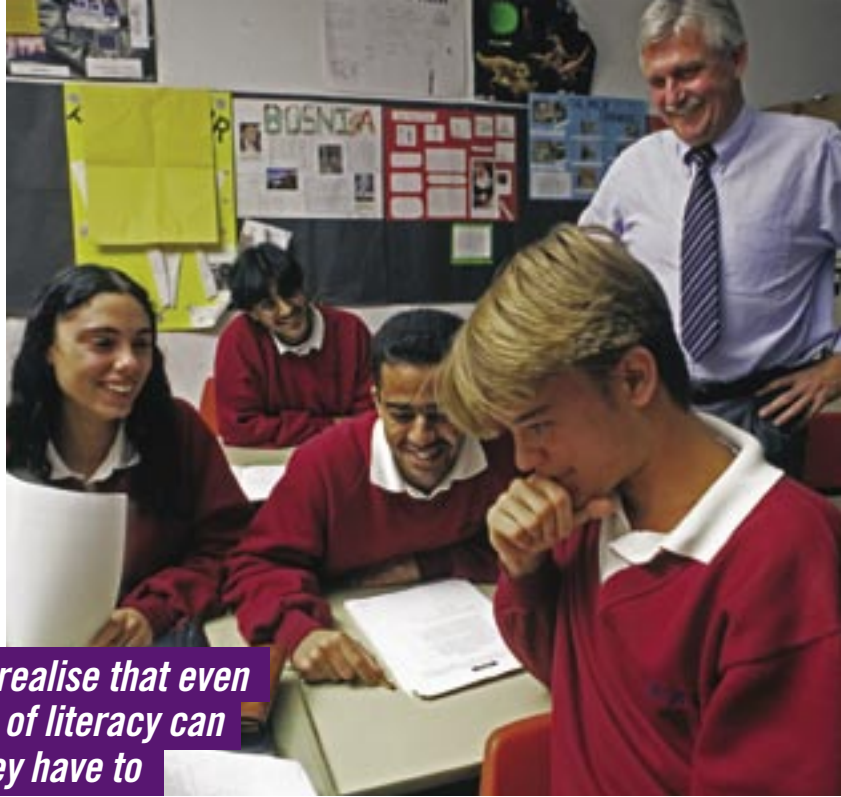
Further education is often asked to cure problems that have arisen elsewhere in society, including inadequate schooling, employers’ unwillingness to invest in their workforces, and



even wholesale social disadvantage. TLRP research shows that teachers and others working in further education often feel they are doing all these things at the same time as struggling with recalcitrant management and ever-changing political priorities, and in a context of inadequate funding. Doubtless the same tale would emerge from research in other areas of public service, but it seems to be especially widespread in further education.

The result of these demands is that many further education staff are putting large amounts of 'emotional labour' into their work. Plenty of people work long hours, but these staff members are also called on to put their feelings on the line.

This trend is seen at an extreme in Scotland, where TLRP has been researching Community Learning Centres. Many of these centres are in



The education system often fails to realise that even people who seem to have low levels of literacy can cope with the written word when they have to

disadvantaged rural or urban areas. They are intended as a local resource for people who would be intimidated by the prospect of travelling long distances to a formal college setting. This mission means that such centres often draw their students from people with complex emotional needs as well as major educational deficits. Staff – and here receptionists are as important as teachers – often end up giving advice and support on a wide range of personal issues running far beyond education.

One of the few pieces of common ground in the debate on 14-19 education is that everyone should emerge from this phase of the lifecourse with strong literacy and numeracy. The lack of these skills is a frequent complaint from employers. Such skills are essential to participating in modern society, where people might be asked to vote in a referendum on the Euro, or work out how to use an unfamiliar piece of computer software.

But in the modern world, literacy and numeracy are not about reading Dickens or solving quadratic equations. Researchers have shown that people who seem to have low levels of literary skill in the classroom are active users of literacy once they get home. Just to get through everyday life, people need to read labels on food or clothes, use maps, find things out on the internet, and perhaps read newspapers, books and magazines.

The education system often fails to realise that even people who seem to have low levels of literacy can cope with the written word when they have to. If a catering exam in an FE course demanded a written essay, it would be a rare caterer who sat down and wrote a formal document of this type. But caterers have to write – anything from a menu to the list of vegetables needed to produce it. Recognising the literacy that people need in a job helps develop more relevant courses. This confirms findings from TLRP work in schools. It has shown that the literacy and numeracy skills are implicit in home life and

Young people who seem to have low levels of literacy skills in class actively use literacy in everyday life, whether it be using the internet or reading magazines.


making them more explicit can help school progress. While employers also lament their employees' low levels of mathematical skill, TLRP research has shown that the modern workplace demands maths skills far different from the ones taught in school. As IT pervades workplaces, everyone needs to be able to operate in a world where a dense web of computation surrounds them.

An example comes from a company providing store cards and credit cards. It employs people with high-level maths skills, perhaps evidenced by a higher degree, to carry out data mining in massive databases and hunt out good prospects for a sale. But these people need to deal with others in the business whose maths education may have finished before A-level.

To communicate effectively, these two groups need a common mathematical language. For example, mathematicians might divide one column of figures by another just to see what happens, as such an approach has yielded interesting insights in the past. They could not explain exactly why they try this approach. Graphs and diagrams, which are generated all too easily by modern software systems, are another key area where understanding can be improved by training.

The debate on 14-19 provision in the UK is bound to continue. It should be seen in the context of expanded higher education in the UK, which now absorbs about half of the 18-year-olds in the population. Despite rapid growth in university participation, there are still large barriers to university entrance for applicants from lower socio-economic groups. They find themselves disproportionately assigned to a part of the education system with low status and sometimes poor performance, and delivering qualifications which are sometimes not highly valued. This encourages social exclusion – and guarantees continued political attention. ■





**every friday
night, I would
have to fight
for my life**

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ECONOMIC
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Work undertaken by the ESRC's Violence Research Programme has enabled Metropolitan Police to better decide which domestic violence 999 calls require the fastest response. This £3.5 million research programme increased understanding of the causes of violence and how these might be prevented, reduced or eliminated.

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The appliance of science

CAN SCIENCE ATTRACT STUDENTS AND RETAIN TEACHERS?

PROFESSOR
ANDREW POLLARD
Director, Teaching
and Learning
Research
Programme



IS THE LAND OF Isaac Newton and Charles Darwin running out of scientists? Does the home of Babbage and Brunel have a shortage of engineers?

On the face of it, the answer is no. The World University Rankings find that Cambridge and Oxford are the first and second universities in the world for science. The UK is also a world magnet for inward investment. High-technology firms would not come if they could not tap in to a skilled workforce.

But beneath the surface, there are problems. University science courses have failed to share in the growth of higher education, with students preferring options such as business studies. A rash of closures of university science departments has attracted political attention, and drawn the ire of employers and of learned societies. There are claims that the school curriculum offers too little science and technology.

But these pronouncements are confusing two issues. One is whether the UK is educating enough professional scientists and engineers for industry, and to provide

Students often see a gap between the subject matter on offer in a school science lesson and the much more exciting world of science on the TV

the next generation of academics. The other is whether British school leavers know enough science to allow them to participate in adult life – to use computers effectively, make an informed judgment about the hazards of medical treatment, work out what amounts to a healthy diet, or form an opinion on climate change.

Science is the only school subject which is designed from an early stage to produce future professionals. A history course is designed to give pupils some idea about the past, but is not intended to produce professors of history. In the same way, science education should not leave pupils feeling like failures if they decide that science is not their life's work.

One of the problems is to make science in school as interesting as it is outside. Museums, zoos and science centres are full of young people learning things. We are living in a golden age of popular science book publishing, much of it directed at children. There are TV channels devoted to science. Newspapers are full of science, although young people rarely read them.

In present-day Britain, many science lessons are given by teachers who do not have a degree in the subject being taught. They may lack confidence. They often produce lessons that fail to stimulate and provide too little of the cooperation and dialogue that lead to genuine learning. In addition, students often see a gap between the subject matter on offer in a school science lesson and the exciting world of science on the TV.

A key issue is the supply, development and retention of science teachers. Getting people into teaching is mainly a matter of attracting undergraduates. The percentage of science students willing to contemplate a career in the classroom has been in decline. This problem is self-feeding. If school chemistry seems unattractive, the number of chemistry students falls and the pool of possible future chemistry teachers shrinks, too.

Part of the issue – and something to be applauded – is that scientists have good career prospects outside teaching. But when undergraduates are asked why they might not become teachers, they also express fear of uncontrollable classes and an interfering government.

And they are sceptical about attempts to entice them into the classroom. As one student put it, when contrasting teaching with a better-paid career in consultancy: “You don’t see McKinsey advertising on the sides of buses.”

Retaining science teachers in the profession has also been a chronic problem. Up to 40 per cent leave before their fifth year. Many have received little or no professional development during their teaching career. Research on professions such as nursing shows that early career support can help cut dropout rates. Supporting teachers more effectively could have the same benefits.

However, the arrival of student debt in the UK opens up another possibility. An ESRC and The Association for Science Education working party on science teaching suggested that teachers who lasted five years in the job might have their debt written off. This might mean a significant percentage of science graduates becoming teachers for a worthwhile part of their careers. If it worked, it might be tried with subjects such as maths and modern languages.

If we want to develop general scientific awareness in the citizens of the future, we also need a better idea of what that awareness should consist of. We know that pupils often fail to grasp the substance of significant topics such as the flow of electricity in a circuit.

In collaboration with working scientists, we drew up an extensive list of the major facts people need to know about science, especially what scientific knowledge is and where it comes from.

Some of the entries were unexpected, such as the extent to which science is a social and creative process. We then developed teaching sequences on these topics, and teaching modules on tricky subjects such as electrical circuits and force and motion. These have been used in classes and have been shown to expand understanding.

We also need to make science more inclusive. While most university students are now women, science has not got its fair share of women students.

The same goes for students from ethnic minority backgrounds. They may be disconnecting from science at an early point in their school career, limiting their ability to develop the knowledge they need to be effective citizens in later life. ■



Illustration Miles Cole

NOW FOR SOME DIGNITY

What is dignity in the workplace, and how can it be achieved?

DIGNITY IN EMPLOYEES' working lives doesn't feature highly on many company agendas. But that's set to change following a study by Professor Sharon Bolton. She believes dignity at work is a far more complex phenomenon than most people think and that it's high time organisations got to grips with the issue. Taking a broader perspective on dignity in the workplace will benefit workers and their employers, she says, and enhance the wellbeing of society.

"There's a general consensus originating from many different perspectives that dignity is an essential core human characteristic," Professor Bolton points out. "It means that people are worth something as human beings, that dignity is something that should be respected and not taken advantage of, and that the maintenance of human dignity is a core contributor to a stable 'moral order'." But, she continues, when one enters the realms of work and the complexities of exchanging labour for a wage, no one is quite so certain what dignity means, how it may be achieved and what it would contribute to the world of work. Dignity in the workplace is normally mentioned only in terms of its absence.

Recent attempts by organisations to secure 'dignity at work' have tended to focus on workplace policies on bullying and harassment. This approach is valuable but it also highlights the narrowness of our current understanding. Dignity at work is not merely a matter of mismanagement, over-long hours, or a poor working environment. Policies on equal opportunities, work-life balance or bullying cannot solve the problem on their own.

One problem is that organisations hop from one hot management topic – 'wellbeing' or 'diversity' or 'work-life balance' to another. But as one new initiative rises to the top of the agenda, existing ones slip off the radar. Professor Bolton says that we need a framework which can accommodate the many

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Dignity in the workplace is an issue that affects many workers, and is something that only a privileged few have attained. Material rewards are not always the answer – other factors include autonomy, esteem and respect.

dimensions of workplace dignity and that can bring in important new issues without pushing others out.

Rising to this challenge, Professor Bolton is developing a 'dimensions of dignity framework' that takes into account both objective and subjective factors that may contribute to dignified workers and dignified work. It distinguishes between factors 'at work' and 'in work'. Interesting and meaningful work with a degree of autonomy, esteem and respect may provide dignity in work. Structures and practices that offer equality of opportunity, collective and individual voice, safe and healthy working conditions, secure terms of employment and just rewards lead to dignity at work.

This framework should help make dignity at work a useful concept. People who work in caring occupations report high levels of satisfaction but poor material rewards. Here, a person's experience of dignity at work is not based on organisational good practice or effective policy, but on their positive feelings about the work they do. In some workplaces the material components of dignity – pay, security, gender equity – often receive short shrift. It is often assumed that the achievement of dignity in work is a good enough form of reward. Taken to its extreme, this might suggest that decent pay and conditions would be damaging to vocational dedication and might attract the 'wrong sort of person'.

Even in the UK's supposed knowledge economy a small minority of the working population, safely sequestered in professional occupations, experience dignity both in and at work. The majority experience denials of dignity. Even the privileged few who enjoy 'decent work' are at risk of denials of dignity. They may be cash rich but they are time poor and are denied the ability to balance their lives. Professor Bolton points to dignity as a concept that may allow job satisfaction, material rewards, human rights and other aspects of working life that are often seen as being in conflict to be viewed instead in an integrated way. ■

A QUESTION OF BALANCE

Despite the work-life balance debate, long working hours still impact on domestic life

BEFORE THE ELECTION OF New Labour in 1997, work-life balance was scarcely discussed. Now, it's the focus of intense interest for employers, employees, policymakers and the media. Graduates now rate work-life balance and flexible working as their top criteria for choosing an employer, according to a survey by PricewaterhouseCoopers. More than 80 per cent of employees rate flexible working as the most attractive benefit that an employer can offer. And, based on recent studies of workplace attitudes, employee demands for more equilibrium in their lives look likely to increase.

And employees are right that this area of working life holds room for improvement. Research led by Professor Rosemary Crompton, as part of the Gender Equality Network, shows that despite all the discussion of work-life balance, work appears to be having an adverse impact on domestic and family life for rising numbers of people.

Past survey evidence suggested that in the 1980s, women were less 'committed' to work than men, being less likely to say that they would continue to work even if they had enough money to live comfortably on for the rest of their lives. Since then, a substantial change has taken place in women's commitment to paid work. By the 1990s just under 70 per cent of both men and women expressed their commitment to paid work. And the latest British Social Attitudes Survey reveals that, if anything, women now have a slightly greater level of non-financial commitment to work than men.

In view of this commitment, it's scarcely surprising that the total hours worked by families are on the rise. A third of women who work full-time now put in more than 40 hours a week, and part-time female workers are spending more time at work than they did a decade ago. Although men's working hours have fallen slightly, this change has been offset by an increase in the time spent at work by women, and by more women being in employment, so the total hours worked by families have increased.

What is the cost of this commitment and of these long hours? More than 40 per cent of men and women working full-time claim they are 'often' or 'always' stressed at work. Less than 10 per cent of full-timers suggest they are 'hardly ever' or 'never' stressed. Even among women working part-time, the proportion reporting low stress levels has declined from 36 per cent in 1989 to 24 per cent in 2005. There has also been a rise in the number of workers wanting more time with their families. In

AT A GLANCE

Stress in the workplace has led to a debate on work-life balance. Despite interest from policymakers, total hours worked by families are on the rise. It's becoming clear that flexibility at work doesn't necessarily lead to lower stress levels.

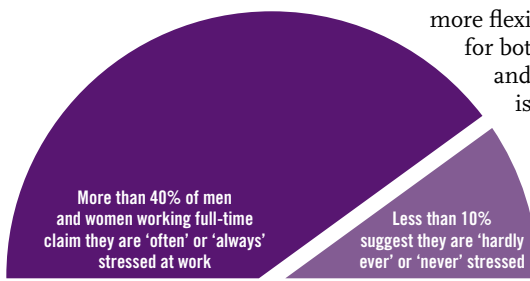
1989, 70 per cent of men and 75 per cent of women working full-time wanted more family time.

By 2005, the percentages had risen to 82 and 84 per cent respectively. Among women working part-time, the figure had risen from 59 per cent to 68 per cent. Only a third of men and women working full-time think that their jobs rarely interfere with their family.

Much of this stress goes with high-status employment: 45 per cent of women working full-time in managerial and professional occupations claim they are often or always stressed at work compared with 24 per cent of women employed in routine or manual work. For men, the differences are narrower but still noticeable. Professionals work longer hours themselves and are more likely to live in a household where both partners are working. As many as 59 per cent of 'professional' men work 40 or more hours a week, compared with just a quarter of manual workers. More than four-fifths of their partners are in paid work, compared with 59 per cent of the partners of manual workers.

These figures point to new directions for work-life policies. They should focus on reducing stress and pressures at work instead of promoting 'flexibility', the byword of present government thinking on the subject.

Graduates and others who say they choose employers partly on the basis of the work-life balance they offer may also need to be clearer about what that means. It may mean more flexible working for both women and men, but it is likelier to be achieved by a reduction in work intensity for both sexes. ■





SLEEP-WALKING TOWARDS SEGREGATION?

Is racial segregation in British society increasing? Research suggests not...

A GROWING NUMBER of people in the UK believe that ethnic segregation is on the rise. According to a poll taken by YouGov in March 2006, almost three-quarters of respondents agreed that British society is becoming increasingly racially segregated. Only 10 per cent of respondents disagreed.

But it seems they are wrong. There is no strong evidence that residential segregation is growing in the UK as a whole. It increased slightly in a small number of places including Bradford, Leicester and Oldham over the decade from 1991 to 2001, but has declined elsewhere. And it has never approached the very high levels associated with the black populations of some US cities.

However, there is still a widely-held feeling in Britain that segregation is substantial and increasing. It is regarded as a major threat to a healthy and diverse multicultural society. Trevor Phillips, now Chair of the Commission for Equality and Human Rights, argued in a widely-discussed speech in September 2005 – just after Hurricane Katrina had drawn attention to segregation in the US south – that Britain is ‘sleepwalking into New Orleans-style racial segregation’.

If fears of growing residential segregation are unfounded, might increasing segregation in schools be a cause for concern? Professor Simon Burgess and colleagues at the Centre for Market and Public Organisation have analysed the ethnic composition of English state primary and secondary schools from 1997 to 2003. They found no evidence of ‘sleep-walking to segregation’. Where segregation has increased, it is usually because the main ethnic minority groups concerned have become relatively

more numerous. There is no evidence for an overall increase in school segregation for any ethnic group.

Within that broad picture, there are some examples of increased segregation. Segregation for students of Pakistani ethnicity in Blackburn grew over these seven years. The reasons are unclear but Professor Burgess is adamant that faith schools are not the cause. “While people may tend to point the finger at Muslim schools, these are simply too few in number to be the reason,” he explains. “High levels of segregation where we do find them are in regular comprehensive schools.”

But the debate will not end here. In 2001, rioting took place in three towns, Bradford, Oldham and Burnley, places with some of the highest levels of ethnic segregation in the country. While any link is speculative, a segregated society is potentially a divisive one.

Professor Burgess says that existing levels of segregation in English state schools may be problematic for building social cohesion. “School years are the time when people are at their most open-minded, most likely to challenge negative attitudes and stereotypes, and in the best situation to form long-lasting friendships,” he argues. “If children grow up attending separate schools and playing in different areas, it is very hard to see how they can build mutual understanding and respect.” But he adds that segregation may offer benefits to the minority students. “Parents may have more confidence in their children’s happiness and safety living in distinct areas and attending schools with a body of children sharing the same ethnicity.”

How can the potentially adverse impact of segregation be mitigated? A faith schools quota will not work. But targeted initiatives to mix children from different schools in a range of joint activities

Policies aimed at emphasising identities that people share across lines of ethnicity and faith may help remove the sting of segregation

may prove more beneficial. Such activities may also emphasise students’ identities in areas other than faith or ethnicity.

Nobel Laureate, Professor Amartya Sen, recently emphasised in his book, *Identity and Violence: The Illusion of Destiny*, that all of us have multiple identities. “The same person,” he writes, “can be, without any contradiction, an American citizen, of Caribbean origin, with African ancestry, a Christian, a liberal, a woman, a vegetarian, a long-distance runner, a historian, a schoolteacher, a novelist, a feminist...”

Policies aimed at emphasising identities which people share across lines of ethnicity and faith may ultimately have some success in removing the sting of segregation.

Politicians and the public should avoid assuming that segregation is on the rise. Communities have always maintained their identities and will go on doing so, but the evidence is lacking that segregation is a serious, growing problem. ■

AT A GLANCE

There is a general perception that Britain is becoming an increasingly racially segregated society, which was borne out by a poll taken by YouGov in March 2006. However, research suggests that, in most cases, this perception is far from reality.



WHO WANTS TO LEARN?

A DULT EDUCATION IS SEEN as a 'second chance' educational opportunity and as a means of achieving social mobility. But are government policies to encourage lifelong learning actually working? Research based at four UK universities offers insights into the differences between would-be adult learners in England, Scotland, Wales and Northern Ireland.

It appears that policy changes from 1997 to 2003 have produced little change in the uptake of lifelong learning. The percentage of English adults who say they are involved in part-time education or training has risen from 20 to 23 per cent. Elsewhere the figures are even less impressive, from 18 to 21 per cent in Wales, 15 to 18 per cent in Scotland and 14 to 16 per cent in Northern Ireland. Home-based learning for women is the one area which has experienced a steep upturn in popularity.

Social class is the key determinant of whether adults participate in learning. Only 20 per cent of manual workers take part compared with 30 to 40 per cent of non-manual workers. Government plans to change the situation seem doomed. The evidence is that people's inclination to participate in formal learning is largely fixed. ■



Mixed views on single-sex education

SINGLE-SEX OR CO-EDUCATIONAL SCHOOLING? Which is the more effective? Arguments for and against both have been bubbling along since the 1920s. Then, co-education got the nod as a jolly good way of helping prevent homosexuality and promote marriage. Now, single-sex classes (albeit within a mixed school) are hailed as one way to pull boys' performance out of the educational mire. But what do we really know about which method works best, for whom and over what timescale?

Now, for the first time, researchers are bringing some hard data to bear on this long-running debate. They have used a national study tracking the progress of a sample of 17,000 children born across Britain in 1958.

GOOD MARKS FOR NEW TECHNOLOGY

Increased investment in ICT is paying dividends in the classroom

INFORMATION AND COMMUNICATION technology (ICT) has long been regarded as a useful tool for raising educational standards. But economists have been less convinced of its merits than educationalists. Various studies have failed to find any positive causal relationship between computers, including computer software, and educational performance.

Given the massive government backing for ICT investment in schools, it is important to find out who's right. Between 1998 and 2002, ICT expenditure in English secondary schools almost doubled – from an average of £40,100 to just under £75,300 per school – and more than trebled in primary schools. And the upward trend continued in 2003 and 2004. Now, researchers at the Centre for Economic Performance have searched again for evidence that new technology can have a positive effect on pupils' performance.

Looking in depth at the period 2000 to 2003, indicators suggest that computer use in the classroom grew fairly substantially over a short time period. What's more, the fraction of teachers trained to use ICT also grew. So, rather than just increasing the quantity of computer equipment, schools have also invested in the quality of ICT use.

The results of large changes in ICT investment now appear more clear-cut. Researchers looked at a sample of primary schools which have experienced a boost of up to 60 per cent in their ICT investment in recent years. They found that a doubling of ICT funding per pupil led to a two percentage point

increase in the proportion of pupils age 11 achieving level 4 or above in English at the end of Key Stage 2. While insignificant for maths, this impact was also positive for science.

Substantial ICT investment does seem to have a payoff, provided it is combined with teacher training to lead to better quality use of ICT in school. ■



The study, one of the National Birth Cohort studies, followed individuals from birth, through the education system and into adulthood, and allowed for confounding variables such as prior educational attainment and social class.

So what does the evidence say? Single-sex education, it seems, brings almost no advantage in terms of exam results. Pupils from girls' schools did somewhat better in exams at 16+ than their co-educational peers, while boys did no better at all.

But single-sex education does seem to help pupils to study subjects not traditionally associated with their gender. Intentionally or not, co-educational schools reinforce gender stereotypes for both boys and girls.

So girls in girls' schools are more likely to take sciences and maths at A-level than those in co-ed schools. And boys in single-sex schools are more likely to choose modern languages and English at A-level – subjects which are

traditionally seen as female-dominated. Single-sex schools are more successful in encouraging students to pursue academic paths according to their talents rather than their gender, whereas more gender-stereotyped choices were made in co-educational schools.

But on leaving school, girls from a single-sex educational background are no more or less likely than their co-ed peers to end up in a traditionally male area of work, although girls from single sex schools do, on average, earn more than girls from mixed sex schools.

The number of single-sex schools has declined steadily over the past three decades. In many respects, it seems that this need not worry us too much.

When we examine issues such as liking or being anxious about school, getting a degree or some other post-school qualification, getting married, enjoying relationships or having children, the ultimate outcomes of single-sex or co-ed schooling are largely similar. ■

Opportunity in the workplace

THE QUALITY OF LOW WAGE EMPLOYMENT

CAROLINE LLOYD
AND KEN MAYHEW,
Centre on Skills,
Knowledge and
Organisational
Performance

WHAT IS LOW-PAY WORK really like? We are now starting to find out. The US-based Russell Sage Foundation is funding a major European comparative study on the quality of low wage employment. It concentrates on a selection of jobs which in the US were found to be associated with employees who had relatively few academic qualifications. The European comparison examines how far these jobs vary, in terms of pay, benefits, working conditions, training, skill, autonomy and opportunities for progression, across different institutional and regulatory environments.

The Russell Sage Foundation is really asking a simple question. Certain functions, like cleaning hotel rooms or hospitals, have to be performed by somebody. But do these functions inevitably have to be associated with low pay and poor prospects? The research is predominantly based upon case studies, looking at specific occupations in five sectors, and associated temporary agency work. These occupations are hotel room attendants, retail sales assistants and

There was a picture of deteriorating job quality, declining relative pay, increased work effort and greater demands for working time flexibility

cashiers, call centre operators, food process and packaging operatives, hospital cleaners and nursing assistants.

Teams in the UK, France, Germany, the Netherlands and Denmark are conducting comparable studies. A second stage of the project, which started in the spring of 2007, will compare the different European experiences with those in the US. The Centre on Skills, Knowledge and Organisational Performance and the National Institute for Economic and Social Research are undertaking the UK research in association with colleagues at Strathclyde and Manchester Universities. In-depth case studies were undertaken in 36 organisations across the five sectors, interviewing senior managers, team leaders, workers in the targeted occupational groups and union or employee representatives.

The UK study has been undertaken against a background of growing low-paid employment in the last 30 years. Defining low pay as gross hourly earnings which are less than two thirds of the median, over 20 per cent of UK workers are low paid. This compares unfavourably to France, Denmark and the Netherlands. Moreover, it represents a significantly larger proportion of the workforce than in the mid 1970s, when less than 15 per cent of UK workers were low paid. This increase was a feature of the period from the mid 1970s until the early and mid 1990s. Since then there has been no further increase, but nor has there been any tendency for the incidence of low pay to diminish. Though there remains a huge gender bias in the phenomenon, with almost 30 per

cent of women being low paid, the incidence of low pay has risen among men to stand at just under 15 per cent.

For many employers in the UK study, cutting employment costs was often a relatively easy response to intensified competitive pressures. An abundant supply of workers available to undertake jobs that require no formal qualifications and often little skill, combined with weak or absent trade unions and limited regulatory constraints, made it easy for organisations to pursue the 'low road'. In retail, hospitals and hotels, managers were able to draw on a growing number of part-time workers, often women with young children, students and pensioners. For hotels in London and for the food sector, the use of migrant workers was endemic, and had increased following the opening up of the labour market to workers from the EU accession countries, placing a downward pressure on wages.

There was evidence of some localised improvements in job quality, for example in call centres, due to recruitment difficulties, and in the NHS. But elsewhere there was a picture of deteriorating job quality, declining relative pay, increased work effort, cuts in benefits, greater demands for working time flexibility and shrinking opportunities.

In the UK, there was found to be a high proportion of low waged workers in all the sectors studied, with the exception of call centres. The national minimum wage was important in providing a wages floor, and without it pay would undoubtedly be lower for hotel room attendants and for the temporary agency workers who were prevalent in three of the sectors. Wages in most of the occupations studied have declined over the last 10 years relative to the average, and recent increases in the minimum wage mean that it is beginning to converge with the lower ends of the pay scales in retail and food processing. The case studies showed that even workers earning significantly above the national minimum often worked two or more jobs, did long overtime hours or relied on state benefits in the form of tax credits to make ends meet.

Not all these jobs are 'dead end'. Particularly with larger employers, there were possibilities for progression. But they were often to jobs that were just a bit better paying. Even this limited advancement was normally out of the reach of part-time workers, except in the NHS. Higher level jobs were frequently considered as only suitable for full-time workers. Prospects for career advancement were generally felt to have declined over recent years, with flat organisational structures and more graduates entering lower-level management jobs.

Many low-paid workers are trapped within the lower reaches of the labour market. As well as low pay, mitigated in the UK by the minimum wage, this is a world of hard work and high pressure, for example involving compulsory flexibility on hours.

There are few prospects for escape, even for those with qualifications. It is usually the lack of available positions that is the problem rather than an unwillingness to train, either on the part of the worker or management. ■